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ABSTRACT

This study was concerned with the problem of decreasing county junior 4-H enrollment in Tennessee. It was designed to determine the association between selected variables concerning county 4-H programs and the total junior 4-H enrollment. The major purposes of the study were (1) to determine the relations between the total number of junior 4-H members enrolled per county and selected variables concerning 4-H leadership, organization, participation, enrollment, place of member residence, and number of extension staff members per county, and (2) to determine which of the six groups of county 4-H programs or independent variables (i.e. 4-H leadership, organization, participation, enrollment, place of residence, and number of extension staff per county) accounted for the largest percentage of variation in the number of junior 4-H members per county. Correlation analysis and multiple correlation analysis were applied to these variables, revealing positive correlation among such factors as number of members, number of leaders, and number of clubs within a county. (Appendix removed because of illegibility of original document.) (Author/MF)

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A Research Summary of a Graduate Study

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RELATIONS BETWEEN JUNIOR 4-H ENROLLMENT AND SELECTED CHARACTERISTICS OF TENNESSEE'S COUNTY 4-H EXTENSION PROGRAMS

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RELATIONS BETWEEN JUNIOR 4-H ENROLLMENT AND SELECTED CHARACTERISTICS OF TENNESSEE'S COUNTY 4-H EXTENSION PROGRAMS

by

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ABSTRACT

The study was concerned with the problem of decreasing county junior 4-H enrollment in Tennessee. It was designed to determine the association between selected variables concerning county 4-H programs and the total junior 4-H enrollment. More specifically, the major purposes of this study were: (1) to determine the relations between the total number of junior 4-H members enrolled per county and selected variables concerning 4-H leadership, organization, participation, enrollment-related, place of member residence, and number of Extension staff members per county, and (2) to determine which of the six groups of county 4-H programs or independent variables (i.e., 4-H leadership, organization, participation, enrollment-related, place of residence, and number of Extension staff per county variables) accounted for the largest percent of variation in the number of junior 4-H members per county.

Data were obtained from the 1965-67 Tennessee 4-H Club Enrollment Reports and the 1960 Census of Population for Tennessee Counties. Twenty-one county 4-H program variables and six junior 4-H enrollment

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variables were studied. The zero order correlation coefficient (r) and the multiple correlation coefficient (R) were used to analyze the data.

Correlation analysis revealed that the number of junior 4-H members enrolled in Tennessee's 95 counties tended to increase when there was an increase in the number of (1) adult 4-H leaders; (2) junior 4-H leaders; (3) 4-H all star numbers; (4) 4-H honor club members; (5) basic four 4-H organizations; (6) 4-H clubs; (7) members attending 4-H camp; (8) members participating in judging; (9) potential junior 4-H members; (10) junior 4-H members residing on rural non-farms; (11) Extension agents; and (12) full-time Extension 4-H staff equivalent. It was also revealed that each of these twelve variables tended to decrease with an increase in the percent of potential junior 4-H members enrolled per full-time Extension 4-H staff equivalent.

Multiple correlation analysis disclosed that: (1) of the six 4-H leadership variables studied, the number of junior 4-H leaders per county accounted for the largest percent of variation (42.6 percent) in the number of junior 4-H members per county; (2) of the four 4-H organization variables studied, the number of 4-H clubs per county accounted for the largest percent of variation (69.0 percent) in the number of junior 4-H members per county; (3) of the three 4-H participation variables studied, the number of 4-H members participating in 4-H camp accounted for the largest percent of variation (32.0 percent) in the number of junior 4-H members enrolled per county; (4) of the three places of 4-H member resident variables, the number 4-H members residing on rural nonfarms accounted for the largest percent of variation (59.0 percent) in the

number of junior 4-H members enrolled per county; and (5) of the two number of Extension 4-H staff variables, the number of full-time Extension 4-H staff equivalent per county accounted for the largest percent of variation (54.0 percent) in the number of junior 4-H members enrolled per county.

RESEARCH SUMMARY

I. PURPOSES OF STUDY

The study was concerned with the problem of decreasing county junior 4-H enrollment in the state of Tennessee. It was designed to ascertain the association between selected variables concerning the county 4-H program and junior 4-H enrollment. More specifically, the major purposes of this study were: (1) to ascertain the relations between the total number of junior 4-H members enrolled per county and selected variables concerning 4-H leadership, organization, participation, enrollment-related, place of member residence, and number of Extension staff members per county; (2) to determine which of the six groups of county 4-H program or independent variables (i.e., 4-H leadership, organization, participation, enrollment-related, place of residence, and number of Extension staff per county variables) accounted for the largest percent of variation in the number of junior 4-H members per county; and (3) to determine which variable, within each of the six groups of 4-H Extension program variables, accounted for the highest percent of variation in the number of junior 4-H members enrolled per county.

II. SOURCE OF DATA

Data for this study were obtained from the Tennessee 4-H Club Enrollment Reports for the years 1965, 1966, 1967, and the 1960 Census of Population for Tennessee Counties. Twenty-one county 4-H program variables (independent variables) and six junior 4-H enrollment variables (dependent variables) were studied.

III. METHOD OF ANALYSIS

Two types of analysis were used in this study. The correlation coefficient (r) was used to determine the relation between each of the twenty-one county 4-H program or independent variables and each of the five 4-H enrollment or dependent variables. The multiple correlation coefficient (R) was used to determine the multiple relation between the county 4-H program or independent variables, within each group of independent variables, and each junior 4-H enrollment or dependent variable. The data were punched on cards and computations were made by The University of Tennessee Computing Center. A step-wise regression program was used to analyze the data.

IV. MAJOR FINDINGS

The major findings concerning each of the independent variables (4-H leadership, organization, participation, enrollment-related, place of member residence, and number of Extension staff members) are presented in this section. The associations and percent of variation in junior

4-H enrollment accounted for by each group of county Extension 4-H program variables are briefly described.

Relation Between Number of Leaders and Junior 4-H Enrollment

Total number of junior 4-H members. Each of the six leadership variables was significantly and positively related (.01 level) to the total number of junior 4-H members enrolled per county. These six leadership variables were: total number of adult leaders; total number of junior leaders; total number of junior and adult leaders; total number of basic four organizations; total number of all stars; and total number of honor club members. Thus, as the number of 4-H leaders increased, the total number of junior 4-H members enrolled per county also increased. It was also found that the six 4-H leadership variables accounted for 53 percent of the variation in the total number of junior 4-H members enrolled per county. Out of this, 42.6 percent of the variation in junior 4-H enrollment was accounted for by the variable, total number of junior 4-H leaders per county.

Number of junior 4-H members per full-time staff equivalent. Three leadership variables, total number of adult leaders, total number of junior 4-H Club leaders, and total number of junior and adult 4-H leaders, showed a significant (.01 level) positive association with the total number of junior 4-H members enrolled per full-time staff equivalent. Thus, counties with a larger number of 4-H leaders tended to have more junior 4-H members enrolled per full-time staff equivalent. The

leadership variables accounted for a total of 19 percent of the variation in the number of junior 4-H members per full-time staff equivalent. Out of this, 13.4 percent was accounted for by the variable, total number of junior and adult 4-H Club leaders.

Number of junior 4-H members per Extension staff member. None of the six leadership variables was significantly related to the number of junior 4-H members per Extension staff member. Only six percent of variation was accounted for by these six leadership variables.

Percent of potential junior 4-H members enrolled. Only one of these six leadership variables, total number of basic four organizations, was significantly (.05 level) and inversely related to the percent of potential junior 4-H members enrolled. Thus, an increase in the total number of basic four organizations was accompanied by a decrease in percent of potential junior 4-H members enrolled. These six leadership variables accounted for 9 percent of the variation in percent of potential junior 4-H members enrolled. Out of this, 4.7 percent was accounted for by the variable, total number of basic four organizations.

Percent of potential junior 4-H members enrolled per full-time staff equivalent. Each of the six leadership variables showed a significant (either .01 or .05 level) and inverse relation with the percent of potential junior 4-H members enrolled per full-time staff equivalent. Thus, counties with a large number of leaders were enrolling a small percent of potential junior 4-H members per full-time staff equivalent.

These six leadership variables accounted for 26 percent of the variation in percent of potential junior 4-H members enrolled per full-time staff equivalent. About 19 percent of this variation was accounted for by the variable, total number of basic four organizations.

Percent of potential junior 4-H members enrolled per Extension staff member. None of the leadership variables was significantly related to the percent of potential junior 4-H members enrolled per Extension staff member. Only 6 percent of variation in percent of potential junior 4-H members enrolled per Extension staff member was accounted for by the four leadership variables.

Relation Between 4-H Organization and Junior 4-H Enrollment

Total number of junior 4-H members enrolled. Each of the four organization variables, total number of junior 4-H Clubs, total number of senior clubs, total number of 4-H Clubs and average number of senior 4-H members per senior club was significantly (either .01 or .05 level) related to the total number of junior 4-H members. Thus, an increase in either of the four organization variables was accompanied by an increase in the total number of 4-H members per county. These four organization variables accounted for 73 percent of the variation in total number of junior 4-H members enrolled. Sixty-nine percent of this variation was accounted for by the variable, total number of 4-H Clubs per county.

Number of junior 4-H members enrolled per full-time staff equivalent. Each of these four organization variables also showed a significant (.01 or .05 level) positive relation with the number of junior 4-H members enrolled per full-time staff equivalent. Thus, an increase in each of these four organization variables tended to accompany an increase in the total number of junior 4-H members enrolled per full-time staff equivalent. These four organization variables accounted for 24 percent of the variation in total 4-H enrollment. Nineteen percent of this variation was accounted for by the total number of junior 4-H Clubs.

Number of junior 4-H members enrolled per Extension staff member. None of these four organization variables was significantly related to the total number of junior 4-H members enrolled per Extension staff member. These organization variables accounted for only 3 percent of the variation in the number of junior 4-H members enrolled per Extension staff member.

Percent of potential junior 4-H members enrolled. Only one of these four organization variables, average number of senior 4-H members per senior club, was significantly (.05 level) related to the percent of potential junior 4-H members enrolled. Seven percent of the variation was accounted for by these organization variables. Out of this, 6.7 percent of the variation in the percent of potential junior 4-H members enrolled was accounted for by the variable, average number of senior 4-H members per senior club.

Percent of potential junior 4-H members enrolled per full-time staff equivalent responsible for 4-H work. Three of the four organization variables showed a significant (.01 or .05 level) negative relation with the percent of potential junior 4-H members enrolled per full-time staff equivalent responsible for 4-H work. Thus, as the number of 4-H Clubs increased there was a decrease in the percent of potential junior 4-H members enrolled per full-time staff equivalent responsible for 4-H work. Two of the organization variables, total number of 4-H Clubs and total number of senior 4-H Clubs, accounted for 13 percent of variation in the percent of potential junior 4-H members enrolled per full-time staff equivalent responsible for 4-H work.

Percent of potential junior 4-H members per Extension staff member. None of the four organization variables was significantly related to the percent of potential junior 4-H members enrolled per Extension staff member. The organization variables accounted for only 3 percent of the variation in percent of potential junior 4-H members per Extension staff member.

Relation Between 4-H Participation Variables and Junior 4-H Enrollment

Total number of junior 4-H members enrolled. Each of the participation variables was significantly (.01 level) related to the total number of junior 4-H members enrolled. This indicated that counties with a large junior 4-H enrollment also had more members participating in 4-H events and activities. The three 4-H participation variables

accounted for 44 percent of the variation in total junior 4-H members enrolled. Of this 44 percent, 32 percent was accounted for by the variable, total number of members participating in 4-H camp.

Number of junior 4-H members enrolled per full-time staff equivalent. Two participation variables, total number of 4-H members participating in 4-H judging and total number of 4-H members participating in 4-H camp, showed a significant (.01 or .05 level) relation with the number of junior 4-H members enrolled per full-time staff equivalent. However, these three participation variables accounted for 13 percent of the variation in the number of junior 4-H members enrolled per full-time staff equivalent. Of this 13 percent, 9.5 percent was accounted for by the total number of 4-H members participating in 4-H judging.

Number of junior 4-H members enrolled per Extension staff member. None of these participation variables was significantly related to the number of junior 4-H members enrolled per Extension staff member.

Percent of potential junior 4-H members enrolled. None of the three participation variables was significantly related to the percent of potential junior 4-H members enrolled.

Percent of potential junior 4-H members enrolled in 4-H per full-time staff equivalent responsible for 4-H work. Two of these participation variables, total number of senior district winners and total number of 4-H members participating in 4-H camp, had a significant (.01 level) and inverse relation with the percent of potential junior 4-H

members enrolled per full-time staff equivalent responsible for 4-H work. Thus, an increase in each of these two variables tended to accompany a decrease in the percent of potential junior 4-H members enrolled per full-time staff equivalent responsible for 4-H work. The three 4-H participation variables accounted for 19 percent of the variation in the percent of potential junior 4-H members enrolled per full-time staff equivalent responsible for 4-H work. Of this 19 percent, 12.4 percent was accounted for by total number of 4-H members participating in 4-H camp.

Percent of potential junior 4-H members enrolled per Extension staff member. None of the participation variables was significantly related to the percent of potential junior 4-H members enrolled per Extension staff member.

Relation Between Potential Junior 4-H Members and Junior 4-H Enrollment

Total number of junior 4-H members. The total number of junior 4-H members showed a significant (.01 level) positive relation with the total number of potential junior 4-H members. Thus, as the total potential number of junior 4-H members increased, the total number of junior members enrolled also increased. This independent variable accounted for 25 percent of the variation in the total number of junior 4-H members enrolled.

Number of junior 4-H members enrolled per full-time staff equivalent. The number of junior 4-H members enrolled per full-time staff

equivalent was not significantly related to the total number of potential junior 4-H members.

Number of junior 4-H members enrolled per Extension staff member. The number of junior 4-H members enrolled per Extension staff member was not significantly related to the total number of potential junior 4-H members.

Percent of potential 4-H members enrolled. The percent of potential 4-H members enrolled showed a significant (.01 level) negative association with the potential number of junior 4-H members. Thus, counties with a high potential junior 4-H enrollment tended to enroll a small percent of the potential members. This potential junior 4-H enrollment variable accounted for 21 percent of variation in the percent of potential 4-H members enrolled per county.

Percent of potential 4-H members enrolled per full-time staff equivalent responsible for 4-H work. The percent of potential junior 4-H members enrolled per full-time staff equivalent had a significantly (.01 level) negative association with the total number of potential junior 4-H members. Thus, counties with a large number of potential junior 4-H members enrolled a smaller percent of the potential 4-H members per full-time staff equivalent responsible for 4-H work. However, this enrollment-related variable accounted for only 9 percent of variation in the percent of potential 4-H members enrolled per full-time staff equivalent responsible for 4-H work.

Percent of potential 4-H members enrolled per Extension staff member. The percent of potential 4-H members enrolled per staff member also showed a significantly (.05 level) negative relation with the total number of potential junior 4-H members. Counties with a large potential junior 4-H enrollment tended to enroll a smaller percent of the potential 4-H members per Extension staff member. However, this enrollment-related variable accounted for only 5 percent of the variation in the percent of potential 4-H members enrolled per Extension staff member.

Relation Between Place of Members Residence and Junior 4-H Enrollment

Total number of junior 4-H members enrolled. The number of 4-H members residing on farms, residing on rural nonfarms, and residing in urban areas had a significant (.01 level) positive association with the total number of junior 4-H members enrolled. Of the 96 percent of variation accounted for, 59 percent was accounted for by the number of junior 4-H members residing on rural nonfarm variable.

Number of junior 4-H members enrolled per full-time staff equivalent. Each of the three place of member residence variables also showed a significant (.01 level) positive association with the number of junior 4-H members enrolled per full-time staff equivalent. Thus, as the 4-H members residing on farms, residing on rural nonfarm, and residing in urban areas increased, the number of junior 4-H members enrolled per full-time staff equivalent also increased. These three variables accounted for 32 percent of variation in the number of junior 4-H

members enrolled per full-time staff equivalent. Out of this 32 percent, 23.6 percent was accounted for by the total number of 4-H members residing on rural nonfarm.

Number of junior 4-H members enrolled per Extension staff member. Only one of the three place of members residence variables was significantly (.05 level) related to the number of junior 4-H members enrolled per Extension staff member. These three variables accounted for only 6 percent of variation in number of junior 4-H members enrolled per Extension staff member.

Percent of potential 4-H members enrolled in junior 4-H. None of the place of member residence variables was significantly related to the percent of potential junior 4-H members enrolled per county.

Percent of potential junior 4-H members enrolled per full-time staff equivalent responsible for 4-H work. Each of the three place of member residence variables was significantly (.01 level) and inversely related to the percent of potential junior 4-H members enrolled per full-time staff equivalent responsible for 4-H work. Thus, an increase in either the number of members living on farm, on rural nonfarm, or in urban areas was accompanied by a decrease in the percent of potential junior 4-H members enrolled per full-time staff equivalent responsible for 4-H work. These three variables accounted for 20 percent of variation in the percent of potential junior 4-H members enrolled per full-time staff equivalent responsible for 4-H work. Out of this 13 percent

of the variation was accounted for by the variable, total number of 4-H members residing on rural nonfarms.

Percent of potential junior 4-H members enrolled per Extension staff member. One of the three place of member residence variables was significantly (.05 level) and inversely related to the percent of potential junior 4-H members enrolled per Extension staff member. An increase in the number of 4-H members residing on rural nonfarm accompanied a decrease in the percent of potential junior 4-H members enrolled per Extension staff member. Only 7 percent of variation in the percent of potential junior 4-H members enrolled per Extension staff member was accounted for by the place of members residence variables.

Relation Between the Number of Extension Staff Members and Junior 4-H Enrollment

Total number of junior 4-H members enrolled. The two Extension staff variables were total number of full-time staff equivalent responsible for 4-H work and total number of Extension staff members per county. Each of these variables showed a significant (.01 level) positive association with the number of junior 4-H members enrolled. Thus, counties with a large full-time Extension staff equivalent or a large number of staff members tended to have larger total junior 4-H enrollment. The two variables accounted for 56 percent of variation in the total junior 4-H members enrolled. Of this percent of variation,

54 percent was accounted for by the total number of full-time staff equivalent responsible for 4-H work.

There was not a significant relation between the number of junior 4-H members enrolled per full-time staff equivalent or the number of junior members enrolled per Extension staff member and the number of Extension staff member variables.

Percent of potential junior 4-H members enrolled in 4-H. Each of the two extension staff variables showed a significant (.01 or .05 level) negative association with percent of potential junior 4-H members enrolled in 4-H. Thus, counties having a large staff tended to enroll a small percent of the potential junior 4-H members. However, these two variables accounted for only 8 percent of variation in the percent of potential junior 4-H members enrolled in 4-H.

Percent of potential junior 4-H members per full-time staff equivalent. Each of the two Extension staff variables was significantly (.01 level) and inversely related to the percent of potential junior 4-H members per full-time staff equivalent. Thus, counties with larger Extension staff tended to enroll a smaller percent of the potential junior 4-H members per full-time staff equivalent. The variable, total number of full-time staff responsible for 4-H work, accounted for 51 percent of the variation in the percent potential junior 4-H members per full-time staff equivalent.

Percent of potential junior 4-H members enrolled per Extension staff member. Each of the two Extension staff variables was also significantly (.01 level) and inversely related to the percent of potential junior 4-H members enrolled per Extension staff member. The Extension staff variable, total number of full-time staff responsible for 4-H work, accounted for 16 percent variation in percent of potential junior 4-H members enrolled per Extension staff member. Counties enrolling a large percent of potential junior 4-H members per Extension staff member tended to have smaller county staffs.

V. CONCLUSIONS

The following conclusions were made concerning junior 4-H enrollment in the 95 counties of Tennessee.

1. The number of junior 4-H members increased when either the number of junior 4-H leaders, adult 4-H leaders, 4-H all stars, honor club members, or basic four organizations increased. Furthermore, the total number of junior 4-H Club leaders accounted for the highest percent of the variation in junior 4-H enrollment.

2. The number of junior 4-H members increased when either the total number of junior 4-H Clubs, total number of 4-H Clubs, or total number of senior 4-H Clubs increased. Furthermore, the total number of 4-H Clubs accounted for the highest percent of variation in the total junior 4-H enrollment.

3. The number of junior 4-H members increased when either the total number of 4-H members participating in 4-H camp, total number of senior district project winners, or total number of 4-H members participating in 4-H judging events and activities increased. Furthermore, the total number of 4-H members participating in 4-H camp accounted for the highest percent of the variation in total junior 4-H enrollment.

4. The number of junior 4-H members increased when either the total number of full-time Extension staff equivalent primarily responsible for 4-H work or total number of Extension staff members per county increased. Furthermore, the total number of full-time Extension staff equivalent responsible for 4-H work accounted for the highest percent of the variation in total junior 4-H enrollment.

5. The number of junior 4-H members enrolled per full-time staff equivalent increased when either the number of adult 4-H leaders, number of junior 4-H leaders, or the number of honor club members increased. The total number of junior and adult 4-H leaders accounted for the highest percent of variation in the number of junior 4-H members enrolled per full-time staff equivalent.

6. The number of junior 4-H members enrolled per full-time staff equivalent increased when either the number of junior 4-H Clubs, number of senior 4-H Clubs or the number of 4-H Clubs increased. The number of junior 4-H Clubs accounted for the highest percent of variation in the number of junior 4-H members enrolled per full-time staff equivalent.

7. The number of junior 4-H members enrolled per full-time staff equivalent increased when either the number of 4-H members participating

in 4-H judging or the number of 4-H members participating in 4-H camp increased. The number of 4-H members participating in judging accounted for the highest percent of variation in the number of junior 4-H members enrolled per full-time staff equivalent.

8. The percent of potential junior 4-H members enrolled decreased when either the number of junior 4-H leaders, basic four organizations, number of 4-H all stars, or number of honor club members increased. The number of basic four organizations in the county accounted for the highest percent of variation in the percent of potential junior 4-H members enrolled per county in Tennessee.

9. The percent of potential junior 4-H members decreased when either the number of full-time staff equivalent responsible for 4-H work or the number of Extension staff members per county increased. The number of Extension staff members per county accounted for the highest percent of variation in the percent of potential junior 4-H members enrolled per county in Tennessee.

10. The percent of potential junior 4-H members enrolled per full-time staff equivalent increased when either the number of adult leaders, junior leaders, basic four organizations, 4-H all stars, or number of honor club members decreased. The number of basic four organizations accounted for the highest percent of variation in the percent of potential junior 4-H members enrolled per full-time staff equivalent per county in Tennessee.

11. The percent of potential junior 4-H members enrolled per full-time staff equivalent increased when either the number of senior

4-H Clubs, junior 4-H Clubs, or total 4-H Clubs decreased. The total number of 4-H Clubs accounted for the highest percent of variation in the percent of potential junior 4-H members enrolled per full-time staff equivalent per county in Tennessee.

12. The percent of potential junior 4-H members enrolled per full-time staff equivalent increased when either the number of full-time staff equivalent responsible for 4-H work or the number of Extension staff members per county decreased.

VI. RECOMMENDATIONS FOR FURTHER STUDY

1. Studies are needed to identify factors which influence the number of adult and junior 4-H leaders serving in the various Tennessee counties. Counties having a large number, and counties with a small number, of leaders could be compared using as variables the characteristics of the counties, the characteristics of the Extension program, and the characteristics and attitudes of Extension agents and volunteer leaders.

2. Studies are needed to compare the "effectiveness" of 4-H programs in counties which enroll a high, and counties which enroll a low, percent of the potential 4-H members per full-time Extension staff equivalent. Effectiveness of Extension 4-H programs could be based upon percents of 4-H project completion, percent of members re-enrolling in 4-H, percent of members participating in 4-H events, activities, and so forth; or district supervisors could, if adequate criteria were established, complete rating scales which would give an evaluation of the effectiveness of county 4-H programs in their Extension district.

BIBLIOGRAPHY

1. Alexander, F. D. "Study of First-year 4-H Club Leaders in New York State," Extension Study No. 12, Journal of Cooperative Extension. Ithaca, New York: Cornell University, 1966.

2. Brown, E. J. and P. G. Boyle. 4-H in Urban Areas. Washington, D. C.: National 4-H Club Foundation, 1964.

3. Carter, G. L., Jr., and Robert C. Clark (eds.). Selected Readings and References in 4-H Club Work. Madison: National Agricultural Extension Center for Advanced Study, University of Wisconsin, 1961.

4. Cleland, C. C. Selected Population and Agricultural Statistics for Tennessee Counties. Agricultural Experiment Station Bulletin 419. Knoxville: The University of Tennessee, 1967.

5. Crile, Lucinda. Review of Extension Studies, Circular 474. Washington, D. C.: United States Department of Agriculture. Hols, S. I. "A Study of Some of the Factors Associated with Reenrollment of First Year 4-H Club Members in Harrison County, West Virginia." Ithaca, New York: Cornell University, 1951.

6. _____. Review of Extension Studies Circular 449. Washington, D. C.: United States Department of Agriculture. Martin, T. T., "The Local 4-H Club Organization." Columbia: University of Missouri, 1947.

7. _____. Review of Extension Studies Circular 480. Washington, D. C.: United States Department of Agriculture, 1952. Slocum, W. L., "Second Year Re-enrollments in 4-H Clubs in Lewis County." Washington, D. C.: United States Department of Agriculture, 1951.

8. Dixon, W. J. (ed.). BMD Biomedical Computer Programs, Second Edition, Berkeley and Los Angeles: The University of California Press, 1968.

9. Federal Extension Service. The Cooperative Extension Service--Today. A Statement of Scope and Responsibility. Washington, D. C.: Government Printing Office, 1958.

10. Gordy, Amelia S. Statistical Summary of 4-H Club Work and Work With Young Men and Women. Washington, D. C.: United States Department of Agriculture, July, 1962.

11. Guilford, J. P. Fundamental Statistics in Psychology and Education. New York: McGraw-Hill Book Company, Inc., 1956.

12. Kristlow, B. W., Cowell Pierce, and Curtis Middleton. Who Joins 4-H Club? Research Bulletin 215. Madison: University of Wisconsin, October, 1959.

13. Kristlow, B. W. and Echo Lidster. Who Joins 4-H Club? Part 2. Research Bulletin 254. Madison: University of Wisconsin, November, 1964.

14. Martin, T. T. The 4-H Club Leader's Hand Book, Principles and Procedures. New York: Harper and Brothers, 1956.

15. Rouse, W. F., Jr. "Factors Influencing Retention of Senior 4-H Club Boys in Hamilton County, Tennessee." Unpublished Master's thesis. Knoxville, Tennessee: The University of Tennessee, 1964.

16. Sanders, H. C. The Cooperative Extension Service. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1966. Pp. 261-75.

17. Stowe, F. W., Jr. "Reasons for Dropouts and Re-enrollment by Older 4-H Club Members in Stevens County, Washington," Extension special problem, Journal of Cooperative Extension. Pullman, Washington: Washington State University, 1963.

18. Tennessee Extension Service. A Glossary of Frequently Used Tennessee Agricultural Extension Terms. Training and Studies Department, PD004, Revised edition. Knoxville: The University of Tennessee, 1967.

19. Tennessee Agricultural Extension Service. Tennessee 4-H Club Enrollment Reports 1960 Through 1968. Knoxville: The University of Tennessee, 1968.

20. United States Department of Agriculture, Federal Extension Service. 4-H Club Enrollment and Percent Re-enrollment. Washington, D. C.: United States Department of Agriculture, 1960-1968.

21. United States Department of Agriculture. "Holding Power of Iowa 4-H Clubs; Girls Thirteen and Fourteen Years of Age." R. C. Esbeck. Review of Extension Research, Circular 534. Washington, D. C.: United States Department of Agriculture, 1961.

22. _____. "Factors Which Contribute Toward Successful 4-H Club Work in Counties and Communities." C. K. Sabrosky. Review of Extension Studies, Circular 486. Washington, D. C.: United States Department of Agriculture, 1955.

23. _____. "Factors Associated with Re-enrollment in 4-H Clubs." H. J. Copp and R. C. Clark. Review of Extension Research, Circular 511. Washington, D. C.: United States Department of Agriculture, 1957.

24. United States Department of Commerce, Bureau of the Census. Census of Population: 1960. Characteristics of the Population, Volume I, Part 44. Washington, D. C.: Government Printing Office, 1963.

25. United States Department of Agriculture. "A Comparison of the Junior 4-H Drop-out of Bienville Parish and Claiborne Parish, Louisiana, 1960-1961." E. E. Letlow. Review of Extension Research, Circular 541. Washington, D. C.: United States Department of Agriculture, 1962.

26. University of Tennessee Agricultural Extension Service. Tennessee 4-H Round-Up Program Reports 1965-67. Knoxville: The University of Tennessee, 1967.

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